

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL KERN and IRVIN BURNS

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Appeal No. 2002-1066  
Application No. 09/304,021

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ON BRIEF

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Before ABRAMS, FRANKFORT, and STAAB, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is a decision on an appeal from the examiner's final rejection of claims 1-8 and 19-27, all the claims currently pending in the application. Subsequent to the final rejection, the examiner objected to claims 2, 3, 21 and 25 as depending from rejected claims, but otherwise considered these claims to be allowable (answer, pages 3-4). Thus, the appeal now involves only claims 1, 4-8, 19, 20, 22-24, 26 and 27.

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Appellants' invention pertains to a drive mechanism and control mechanism for controlling the operation of a wire cutting apparatus. As explained by appellants on pages 1-2 of the specification in the "**Background Of The Invention**" section thereof, a known wire cutting apparatus, disclosed in U.S. Patent 5,850,773 to Burns, utilizes a drive mechanism including a continuously rotating electric motor 21 coupled to a wire cutting device 20, 42 by a one-revolution clutch/brake mechanism 28. According to appellants, the clutch/brake mechanism in this known cutting apparatus is susceptible to reliability problems. Appellants seek to improve upon the performance of this known apparatus by providing a control system that does not require the use of a one-revolution clutch/brake mechanism. A further understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to appellants' main brief.

The references relied upon by the examiner in the final rejection are:

Green	4,512,225	Apr. 23, 1985
Yankaitis et al. (Yankaitis)	5,921,160	Jul. 13, 1999

In addition, the examiner relies upon appellants' admission of prior art (hereinafter, AAPA) on pages 10-11 of the specification concerning the existence of a certain commercially available direct torque variable frequency drive control.

Claims 1, 6-8, 19, 20 and 22-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yankaitis in view of Green.

Claims 4, 5, 26 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yankaitis in view of Green and further in view of AAPA.

Reference is made to appellants' main and reply briefs (Paper Nos. 15 and 21) and to the examiner's answer (Paper No. 17) for the respective positions of appellants and the examiner regarding the merits of these rejections.

#### *Discussion*

Yankaitis<sup>1</sup>, the examiner's primary reference, pertains to a wire cutting apparatus. The thrust of Yankaitis is the provision of an improved release assembly 46 "which allows for dynamic alteration of a number of the cut parameters" (column 6, lines

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<sup>1</sup>Like the above mentioned Burns patent, Yankaitis is also discussed in the "**Background Of The Invention**" section of appellants' specification.

63-64). There appears to be no dispute that Yankaitis discloses a wire cutting apparatus comprising a cutter holder carried by a support, the cutter holder having a wire cutter, an electric motor 40 carried by the support having an output driving the cutter holder, and a proximity sensor 52 arranged downstream of the cutting station arranged in sensory communication with the wire cutter adapted to produce a signal indicating presence of wire in proximity to the end of a predetermined wire path.

The examiner concedes that Yankaitis does not have an additional proximity sensor arranged in sensory communication with the wire cutter adapted to produce a signal indicating location of the wire cutter relative to the wire path, or a controller responsive to both proximity sensors to control the electrical motor by selectively generating a first electrical output to drive the motor and work the wire cutter into the predetermined wire path and a second electrical output to decelerate the motor and maintain the wire cutter adjacent to the predetermined wire path. The examiner turns to Green for a teaching of these features.

Green pertains to a differential integral controller for controlling a rotary knife for cutting sheet material. According to Green (column 1, lines 47-66), the invention thereof

provides a method and apparatus for controlling a moving knife in a continuous sheet cutting process for cutting the continuous [sic] sheet into predetermined lengths wherein the moving knife is maintained in a park position until a predetermined length of the continuous sheet has passed the location where the cut is made. . . . The moving knife starts from rest at the park position and accelerates to a speed greater than a speed synchronous with the material line then decelerates to a speed synchronous with the material line prior to cutting the continuous [sic] moving sheet of material into a predetermined length then operates synchronous with the material line until the knife returns to the park position.

The controller of Green includes, among other things, a microprocessor 34 that utilizes the input of three pulse generators to control rotary knife 18. Pulse generator 30 generates a series of electrical pulses as a function of the length of continuous wallboard passing roller 28. These pulses "represent[] the length of wallboard line that has been measured since the accumulation of pulses generated by pulse generator **30** was last reset to zero" (column 3, lines 8-11). Pulse generator 36 generates pulses as a function of the distance of travel of knife 18 from the park position. These pulses "represent the distance of travel of knife **18** from the park position since the accumulation of pulses generated by pulse generator **36** was last reset to zero" (column 3, lines 18-21). Pulse generator 40 generates one pulse per revolution of knife 18 upon returning to

the park position. The pulse generated by pulse generator 36 "resets to zero the accumulated pulse counts generated by pulse generators **30** and **36**" (column 3, lines 24-26).

According to the examiner, it would have been obvious to one of ordinary skill in the art "to modify Yankaitis's device with the teachings of Green in order to sever the workpiece at the desired and suitable location and to increase the reliability of the device" (answer, page 3). The examiner also contends that

Green's device provides more reliable cutting operation by employing sensors to control the cutter in relation to the position of the workpiece, and there is a clear motivation to do so in the Green's [sic, Green] reference. It is for that reason that it would have been obvious to one having ordinary skill in the art to employ an additional sensor with a controller in order to achieve a more reliable cutting operation. [Answer, page 6.]

Green, however, does not provide a basis for modifying Yankaitis in a manner that would result in the subject matter of independent claims 1 and/or 19. First, it is not clear to us precisely how the examiner proposes to modify Yankaitis in view of the teachings of Green. In this regard, the examiner's statement that it would have been obvious "to modify Yankaitis's device with the teaching of Green" (answer, page 3) and that it would have been obvious "to employ an additional sensor with a controller [in Yankaitis]" (answer, page 6) does not suffice.

Second, we agree with appellants' argument that there is no proper motivation in the combined teachings of the applied references for modifying Yankaitis in view of Green's multiple sensor arrangement to arrive at the claimed subject matter. In this regard, for the reasons set forth by appellants in the paragraph spanning pages 9-10 of the main brief, we agree with appellants that Yankaitis and Green are based on different principles of operation and are directed to entirely different applications. These differences in principle of operation and application belie the examiner's contention that one of ordinary skill in the art would have been led to modify Yankaitis in view of Green's teachings to arrive at appellants' claimed subject matter. Third, the examiner's specifically articulated rationale that it would have been to modify Yankaitis "to increase the reliability of the [Yankaitis] device" (answer, page 3) is not well taken because it does not appear to come from the teachings of the applied references but instead from appellants' disclosure. *See, e.g., Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988) (requisite motivation to combine must stem from some teaching, suggestion or inference in prior art as a whole or from knowledge generally available to ordinarily skilled

artisan and not from appellants' disclosure). Fourth, Green's teaching at column 6, lines 50-59, that the method and apparatus disclosed therein results in small errors in location of the cuts would have acted as a disincentive to one of ordinary skill in the art in regard to use of Green's controller in Yankaitis, where a high degree of accuracy is a matter of importance (see column 2, lines 12-19). Fifth, modifying Yankaitis by providing a controller like that of Green therein, as the examiner appears to propose, would altogether change the principle of operation of Yankaitis for the reasons explained by appellants on page 17 of main brief, which is a further indication that the proposed modification would not have been obvious in light of the reference teachings. See *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959).

In light of the foregoing, we shall not sustain the standing rejection of claims 1, 6-8, 19, 20 and 22-24 as being unpatentable over Yankaitis in view of Green.

We also shall not sustain the standing rejection of claims 4, 5, 26 and 27 as being unpatentable further in view of AAPA since AAPA does not overcome the deficiencies of Yankaitis and Green discussed above.

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In summary, the decision of the examiner finally rejecting  
claims 1, 4-8, 19, 20, 22-24, 26 and 27 is reversed.

*REVERSED*

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
CHARLES E. FRANKFORT	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
	)	
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	)	
LAWRENCE J. STAAB	)	
Administrative Patent Judge	)	

LJS/hh

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